REMARKS/ARGUMENTS

Claims 8-10, and 12-17 are pending. Claims 1 and 5-7 have been canceled without prejudice and without disclaimer. Claim 8 has been amended. New claims 12-17 have been added. No new matter has been introduced. Applicants believe the claims comply with 35 U.S.C. § 112.

Claims 8-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohashi et al. (US 6,507,464) in view of Chen et al. (US 6,776,891).

Applicants would like to thank Examiner Bernatz for the courteous telephone interview extended to Applicants' counsel, Chun-Pok Leung, on November 9, 2005. The Examiner provided comments to clarify the rejection for Applicants' counsel. According to the Examiner, Chen et al. discloses at column 3, lines 10-17 "an alloy of Co-Fe-M, wherein the element M can be chosen from the group consisting of Mo, Cr, W, Ni or Rh and wherein said alloy has a composition of the form $Co_{100-a-n}Fe_aM_b$, wherein a is between 50 and 80 and b is between 0 and 10 and wherein the as-deposited saturation magnetic moment is greater than 20 kG and the easy-axis coercivity is less than 7 Oe." Chen et al. further discloses at column 3, lines 53-58 "a particular example of the $Co_{100-a-b}Fe_aM_b$ alloy wherein a is between 63 and 67 and b is between 0 and 0.5 and wherein the as-deposited saturation magnetic moment of said alloy is greater than 23 kG and its easy-axis coercivity is less than 11 Oe."

Claims 8-10

Applicants respectfully submit that claim 8 as amended is patentable over Ohashi et al. and Chen et al. because, for instance, they do not teach or suggest a magnetic layer, which is formed by electroplating in a plating bath having pH value of 2 or less and is nearest to the magnetic gap of the magnetic layers, and contains Co, Ni, and Fe, with $20 \leqq Co \leqq 40$ wt%, $0 < Ni \leqq 2$ wt%, and $60 \leqq Fe \leqq 80$ wt%, and has a saturation magnetic flux density of 23,000 gauss or more. The present invention provides a smooth, thick, glossy, and clear CoNiFe alloy film with a high corrosion resistance so that a saturation flux density of 23000 gauss or more (higher than that of Ohashi et al.) has been achieved. See paragraph [0010] at page 2, lines 15-17; and paragraph [0041] at page 8, lines 17-21.

The recited composition of the nearest magnetic layer is different from that of the nearest magnetic layer in Ohashi et al., which contains $50 \leqq Co \leqq 80$ wt%, $3 < Ni \leqq 10$ wt%, and $20 \leqq Fe \leqq 40$ wt%, as disclosed at column 2, line 65 to column 3, line 2. These three ranges of Co, Ni, and Fe do not overlap at all.

Chen et al. fails to cure the deficiencies of Ohashi et al. Although Chen et al. discloses $Co_{100-a-b}Fe_aM_b$ that falls within the recited ranges, it does not teach forming the magnetic layer by electroplating a magnetic layer of magnetic layers within the magnetic head to produce the ranges of content of Co, Ni, and Fe. Chen et al. also fails to teach or suggest forming the magnetic layer by electroplating it in a plating bath having pH value of 2 or less.

Furthermore, Applicants respectfully assert that there is no motivation to combine Chen et al. with Ohashi et al. because Ohashi et al. specifically **teaches against** the composition disclosed in Chen et al. For example, Ohashi et al. states at column 7, lines 42-45: "Accordingly, in order to achieve excellent soft magnetic characteristics such as a low coercive force and a high saturation flux density, the content of Ni **must be** equal to 3 wt % or more" (emphasis added). Ohashi et al. further states at column 8, lines 18-20: "At first, if the content of Fe is greater than 40 wt % or if the content of Co is smaller than 50 wt %, it is **extremely difficult** to achieve the coercive force not greater than 5 Oe" (emphasis added). A person of ordinary skill in the art would not modify Ohashi et al. using the composition disclosed in Chen et al. because, according to Ohashi et al., such a composition could not achieve the desired low coercive force and high saturation flux density for the $Co_xFe_yNi_z$ magnetic film to be used in the magnetic pole layer of the inductive head in Ohashi et al.

For at least the foregoing reasons, claim 8 and claims 9-10 depending therefrom are patentable over Ohashi et al. and Chen et al.

Claims 12-14

Applicants respectfully submit that new independent claim 12 is patentable over the cited references because, for instance, they do not teach or suggest forming a second magnetic layer on the underlayer by electroplating; wherein at least a first part of the second

magnetic layer contains Co, Ni, and Fe, with 20 ≦ Co ≦ 40 wt%, 0 < Ni ≦ 2 wt%, and 60 ≦ Fe ≦ 80 wt%, and has a saturation magnetic flux density of 23,000 gauss or more.

As discussed above, the recited composition of the nearest magnetic layer is different from that of the nearest magnetic layer in Ohashi et al., which contains 50 ≦ Co ≦ 80 wt%, 3 < Ni ≦ 10 wt%, and 20 ≦ Fe ≦ 40 wt%, as disclosed at column 2, line 65 to column 3, line 2. Chen et al. fails to cure the deficiencies of Ohashi et al., since it fails to teach forming the magnetic layer by electroplating a magnetic layer of magnetic layers within the magnetic head to produce the ranges of Co, Ni, and Fe. Moreover, Ohashi et al. specifically **teaches against** the composition disclosed in Chen et al., so that a person of ordinary skill in the art would not modify Ohashi et al. using the composition disclosed in Chen et al.

For at least the foregoing reasons, claim 12 and claims 13-14 depending therefrom are patentable over Ohashi et al. and Chen et al.

Claims 15-17

Applicants respectfully submit that new independent claim 15 is patentable over the cited references because, for instance, they do not teach or suggest a first magnetic layer formed by electroplating in a plating bath having pH value of 2 or less; wherein at least a first part of the first magnetic layer contains Co, Ni, and Fe, with 20 ≦ Co ≦ 40 wt%, 0 < Ni ≦ 2 wt%, and 60 ≦ Fe ≦ 80 wt%, and has a saturation magnetic flux density of 23,000 gauss or more.

As discussed above, the recited composition of the nearest magnetic layer is different from that of the nearest magnetic layer in Ohashi et al., which contains 50 ≦ Co ≦ 80 wt%, 3 < Ni ≦ 10 wt%, and 20 ≦ Fe ≦ 40 wt%, as disclosed at column 2, line 65 to column 3, line 2. Chen et al. fails to cure the deficiencies of Ohashi et al., since it fails to teach forming the magnetic layer by electroplating a magnetic layer of magnetic layers within the magnetic head to produce the ranges of Co, Ni, and Fe. Chen et al. also fails to teach or suggest forming the magnetic layer by electroplating it in a plating bath having pH value of 2 or less. Moreover, Ohashi et al. specifically **teaches against** the composition disclosed in

Chen et al., so that a person of ordinary skill in the art would not modify Ohashi et al. using the composition disclosed in Chen et al.

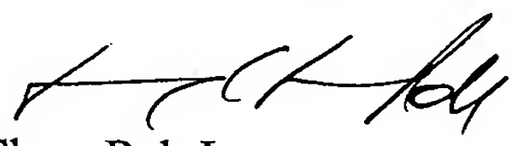
For at least the foregoing reasons, claim 15 and claims 16-17 depending therefrom are patentable over Ohashi et al. and Chen et al.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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